



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Naomasa SHIRAISHI

Application No.: 10/679,151

Filed: October 6, 2003

Docket No.: 032136.09

For: PROJECTION EXPOSURE METHOD WITH LUMINOUS FLUX DISTRIBUTION (AS AMENDED)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date of this non-CPA application, OR (b) before the mailing date of a first Office Action on the merits in the present application. No certification or fee is required.
- ☒ 2. The references were cited by or submitted to the Office in parent application No. 09/423,457, filed April 19, 1995, which is relied upon for an earlier filing date under 35 U.S.C. §120. Thus, copies of these references are not attached. 37 CFR §1.98(d).

Respectfully submitted,

Mario A. Costantino  
Registration No. 33,565

MAC/ccs  
Date: January 8, 2004

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DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
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Sheet 1 of 9

Form PTO-1449 (REV. 8-83)		US Dept. of Commerce PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. 032136.09		APPLICATION NO. 10/679,151	
INFORMATION DISCLOSURE STATEMENT  (Use several sheets if necessary)				APPLICANT(S) Naomasa SHIRAISHI			
				FILING DATE October 6, 2003		GROUP	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	
		4,179,708	12-1979	Sheng et al.			
		4,249,793	02-1981	Uehara			
		4,275,288	06-1981	Makosch et al.			
		4,370,034	01-1983	Nohda			
		4,389,701	06-1983	Phillips			
		4,476,519	10-1984	Hayamizu			
		4,497,013	01-1985	Ohta			
		4,498,742	02-1985	Uehara			
		4,547,037	10-1985	Case			
		4,566,765	01-1986	Miyauchi et al.			
		4,585,315	04-1986	Sincerbox et al.			
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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	
		WO 88/08932	11-1988	WIPO			
		EP-A1-0 282 593	09-1988	Europe			
		EP-A2-0 346 844	12-1989	Europe			
		1,137,243	12-1968	United Kingdom			
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
		IBM Technical Disclosure Bulletin, vol. 32, no. 1, "Extended Focal Depth Optical Microlithography", June 1989, pp. 125-127.					
EXAMINER				DATE CONSIDERED			
Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Date: January 8, 2004

Sheet 2 of 9

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		4,637,691	01-1987	Uehara et al.			
		4,769,750	09-1988	Matsumoto et al.			
		4,851,882	07-1989	Takahashi et al.			
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		4,828,392	05-1989	Nomura et al.			
		4,853,756	08-1989	Matsuki			
		4,931,830	06-1990	Suwa et al.			
		4,939,630	07-1990	Kikuchi et al.			
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Sheet 3 of 9Form PTO-1449  
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## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANT(S)  
Naomasa SHIRAISHIFILING DATE  
October 6, 2003

GROUP

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		4,952,815	08-1990	Nishi		
		4,970,546	11-1990	Suzuki et al.		
		4,974,919	12-1990	Muraki et al.		
		5,016,149	05-1991	Tanaka et al.		
		5,048,926	09-1991	Tanimoto		
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		5,673,102	09-1997	Suzuki et al.		
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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS
		JP-A-2-50417	02-1990	Japan (with abstract)		

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)


EXAMINER

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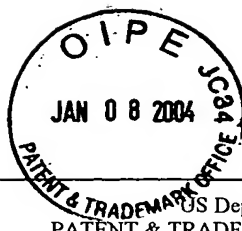
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Sheet 4 of 9

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	
		5,208,629	05-1993	Matsuo et al.			
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Sheet 5 of 9

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	3,770,340	11-1973	Cronin et al.		
	4,241,389	12-1980	Heimer		
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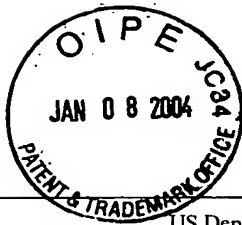
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#### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

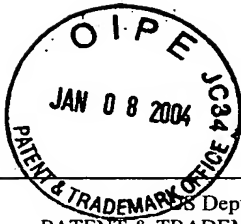
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	SPIE vol. 633 Optical Microlithography V (1986), "A concept for a high resolution Optical Lithographic System for Producing one-half Micron Linewidth", George O. Reynolds, page 228-238
	"On the use of an illumination azimuth diaphragm during coaxial dark field illumination", A. SZEGVARI et al., 1923, page 1-11
	Charles C. Thomas, Publisher, Springfield, IL, (1958) "The practical use of the microscope, including photomicrography", George H. Needham, chapter XX, pages 315-327; and page 97
	W.H. Freeman and Company, Publisher, San Francisco 1958, "Concepts of classical optics", John Strong, Appendix K, "The wave theory of microscopic image formation by F. ZERNIKE, pages 525-536

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		Microelectronic Engineering 11 (1990), Elsevier Science Publishers B.V., "Heterodyne holographic nanometer alignment for a wafer stepper", N. Nomura et al., page 133-136					
		J. Vac. Sci. Technol. B 10(6), Nov/Dec 1992, "Investigation of single sideband optical lithography using oblique incidence illumination", Emi TAMECHIKA et al., page 3027-3031					
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		J. Vac. Sci. Technol. B 9(6), Nov/Dec 1991, "Improving projection lithography image illumination by using sources far from the optical axis", Satoru ASAI et al., page 2788-2791					
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Sheet 7 of 9

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		3,639,039	2/72	Rhodes, Jr.			
		3,658,420	4/72	Axelrod			
		4,472,023	9/84	Yamamoto			
		4,854,669	8/89	Birnback et al.			
		4,739,373	4/88	Nishi et al.			
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		5,307,207	4/94	Ichihara			
		5,004,348	4/91	Magome			
		3,630,598	12/71	Little			
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		5,446,587	8/95	Kang et al.			
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		59-83165	05/84	Japan			
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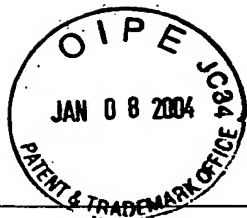
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Sheet 8 of 9

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		5,638,211	6/97	Shiraishi			
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		JP-A-56-12615	02-1981	Japan (with abstract)			
		JP-A-58-16214	01-1983	Japan (with abstract)			
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		3,776,633	12-1973	Frosch et al.			
		4,370,026	01-1983	Dubroeuq et al.			
		4,814,829	03-1989	Kosugi et al.			
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